#### Appendix A

#### **TECHNICAL SOLUTIONS DECISION TREES**

#### **Water Systems**

- 1) Any existing concerns with the water system?
- 2) Sources of water
  - a. Groundwater (wells)?
  - b. Number of wells?
  - c. Surface water?
  - d. Both?
- 3) Water Demands (in consultation with an engineer)
  - a. Water production (avg gpd for every month)?
  - b. Potable?
  - c. Non-potable?
  - d. Water meters installed?
  - e. Is water demand able to be met year round?
- 4) Existing Water Treatment
  - a. Chlorination?
  - b. Other treatment? Provide details.
- 5) Water Quality
  - a. Is the water quality currently meeting all standards?
  - b. Is the system under a State/EPA compliance order?
  - c. Provide detailed water quality analysis. At least results submitted to CDPH.
- 6) Infrastructure (in consultation with an engineer)
  - a. Are there leaks in the water distribution system?

## Information to be Gathered in Order to Use Decision Trees

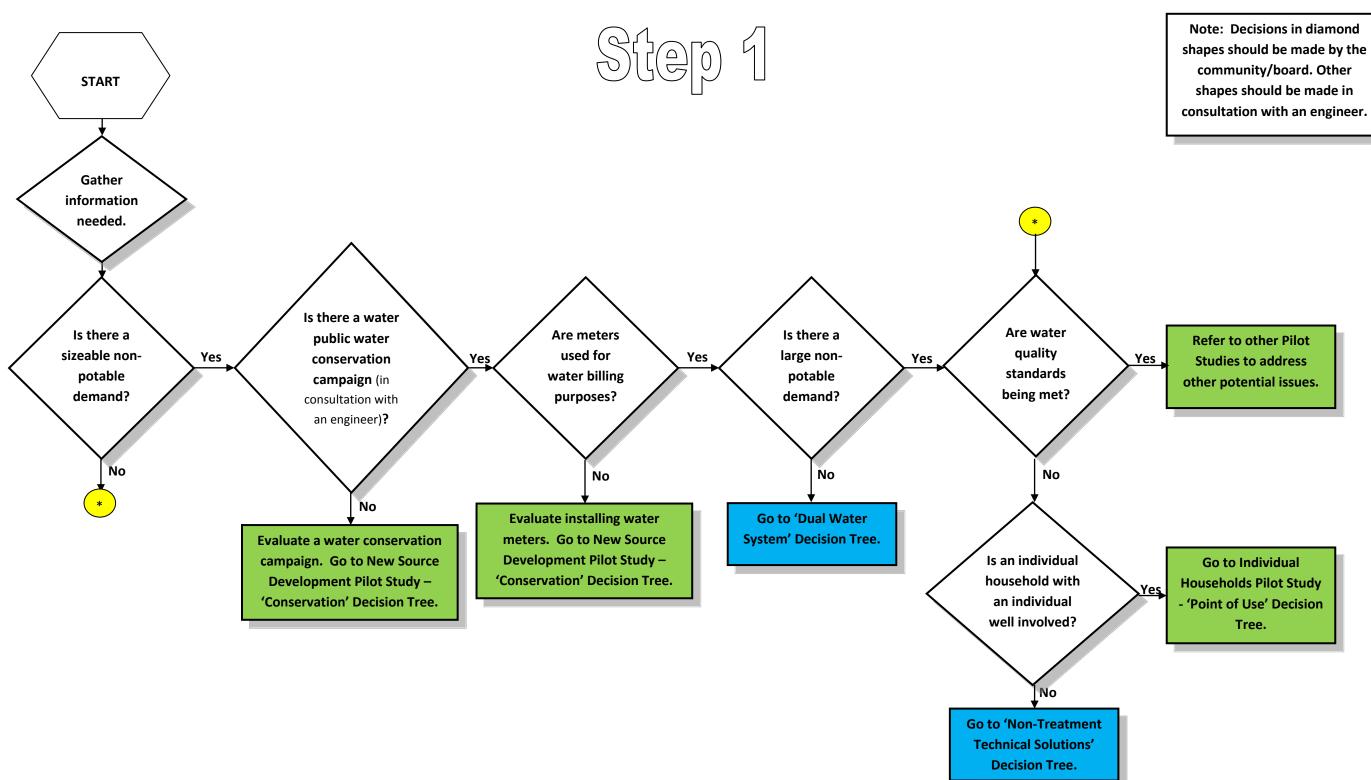
- b. Are there other sources of water available?
- c. Is there the possibility of connecting to a neighboring water system?
- d. What are existing water rates?
- e. Is there land available for water treatment?
- f. What is the grade of existing water operator?
- g. Are pump curves and horsepower available for all pumps (including well pumps)?
- 7) Funding
  - a. Has funding been applied for from any agency?

# **Wastewater Systems**

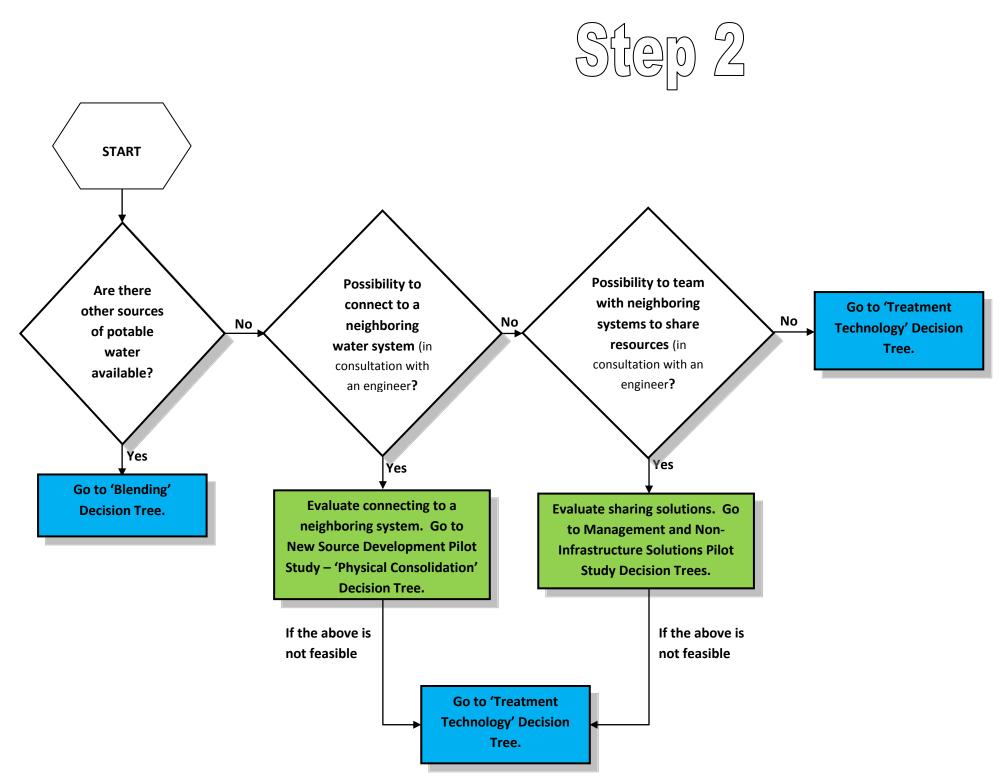
- 1) Any existing concerns with the wastewater system?
- 2) How is wastewater treated?
  - a. Individual household septic systems?
  - b. Centralized wastewater treatment plant?
- 3) How is wastewater treated?
  - a. Aerated lagoon?
  - b. Trickling filter?
  - c. Digesters (anaerobic or aerobic)?
  - d. Are pump curves and horsepower available for all pumps (including well pumps)?
- 4) Treated wastewater quality

- a. Is treated wastewater meeting all applicable discharge limits?
- b. If there were violations, what were the violations for?
- 5) Disposal of treated wastewater
  - a. Is discharge to land (percolation, evaporation, leachfields, spray field, other)?
  - b. Any discharge to surface water?
- 6) Disposal of wastewater solids
  - a. Are solids dewatered?
  - b. How are solids stored?
  - c. How are solids from the wastewater process disposed of (land, landfill, other)?
- 7) Infrastructure
  - a. Is there an existing collection system? Is it adequate for existing flows?
  - b. Is there the possibility of connecting to a neighboring wastewater system?
  - c. What are existing sewer rates?
  - d. Is there land available for additional wastewater treatment?
  - e. Grade of existing wastewater operator?
  - f. Are pump curves and horsepower available for all pumps (including well pumps)?
- 8) Funding
  - a. Has funding been applied for from any agency?

# TECHNICAL SOLUTIONS DECISION STARTING TREE

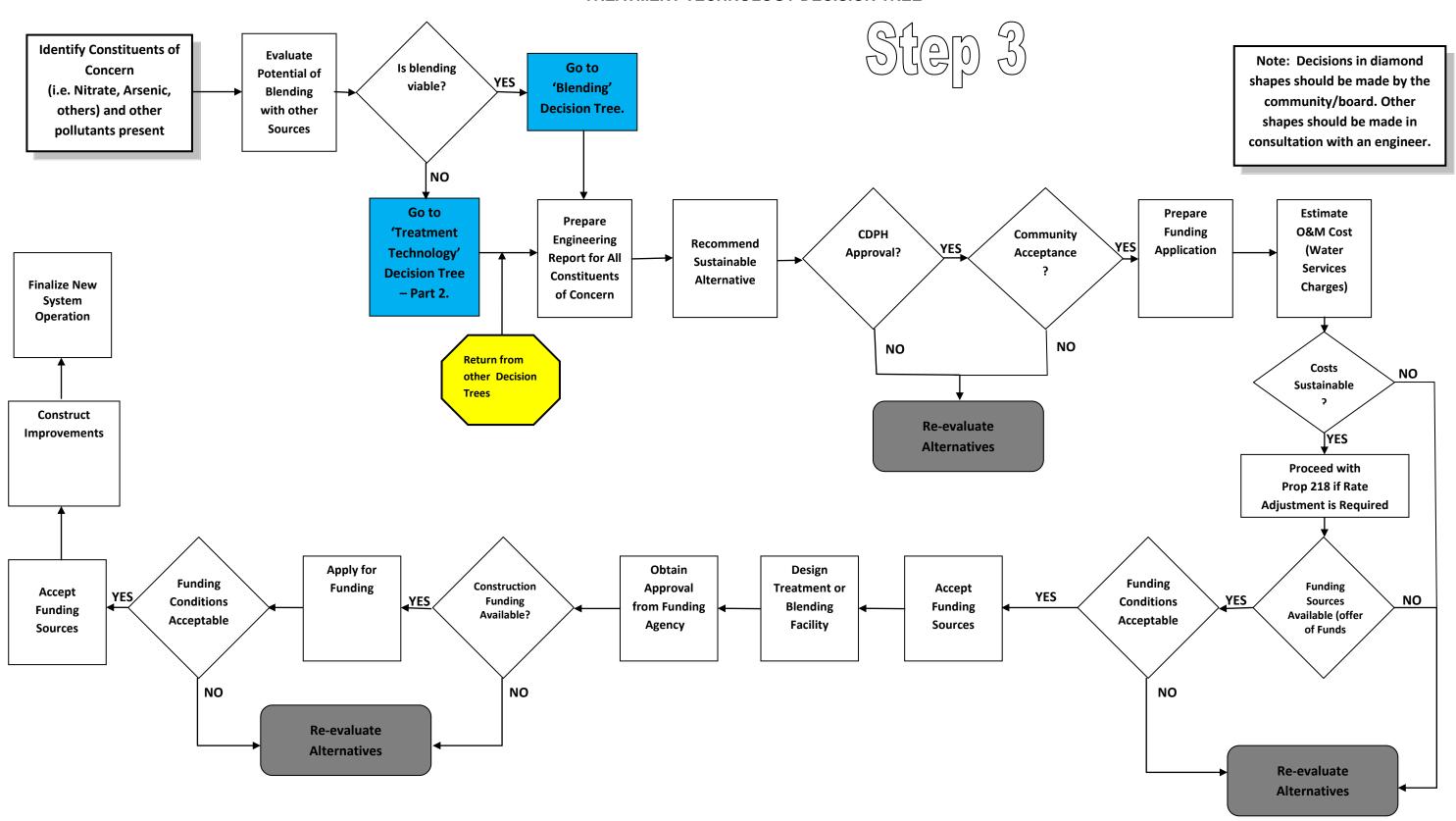


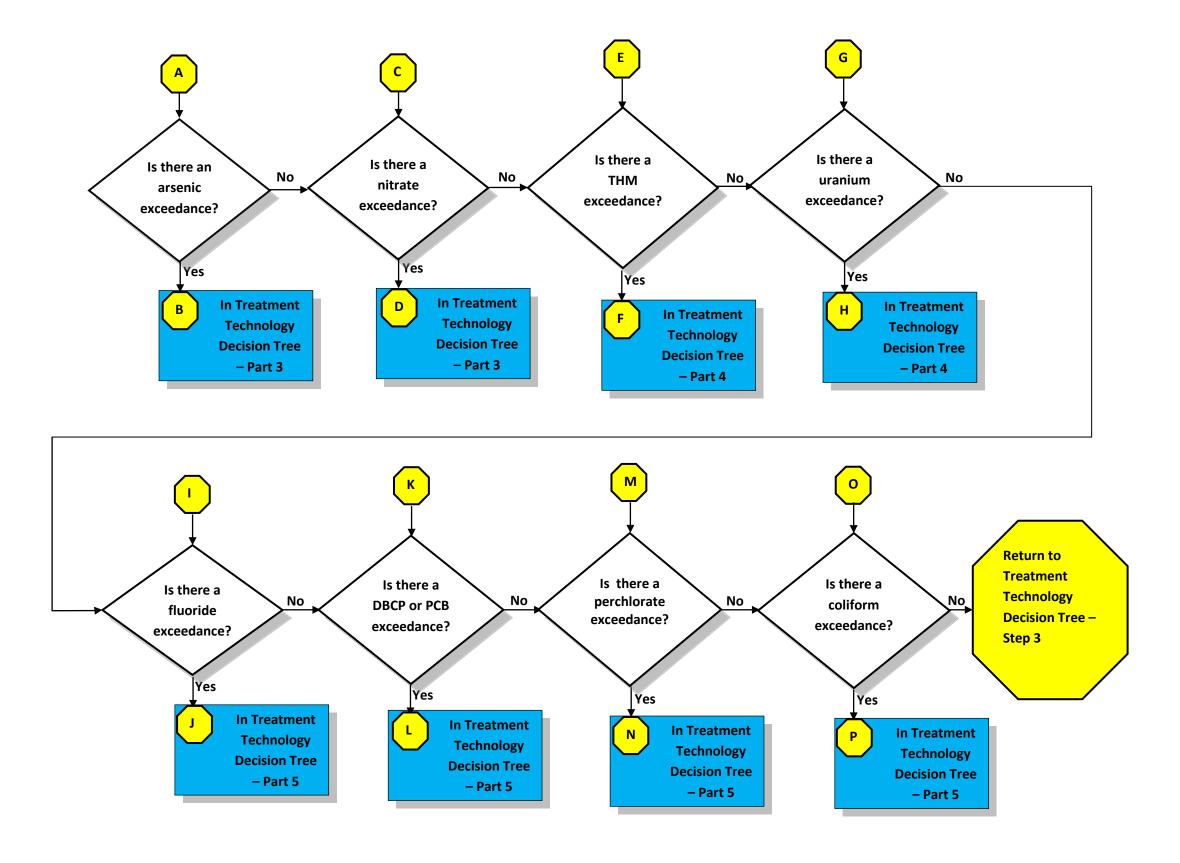
# NON-TREATMENT TECHNICAL SOLUTIONS DECISION TREE

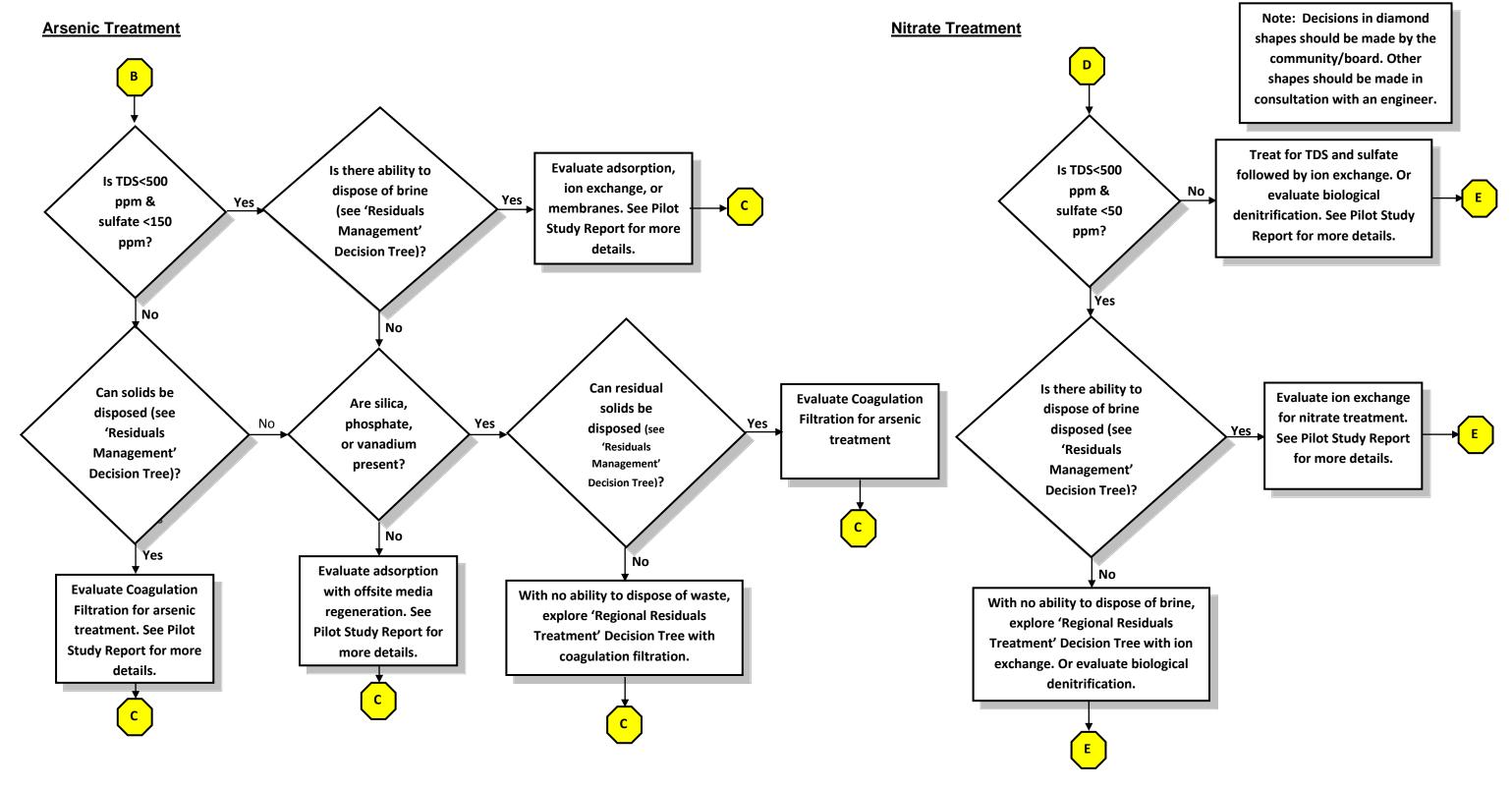


### **TECHNICAL SOLUTIONS DECISION TREES**

#### TREATMENT TECHNOLOGY DECISION TREE

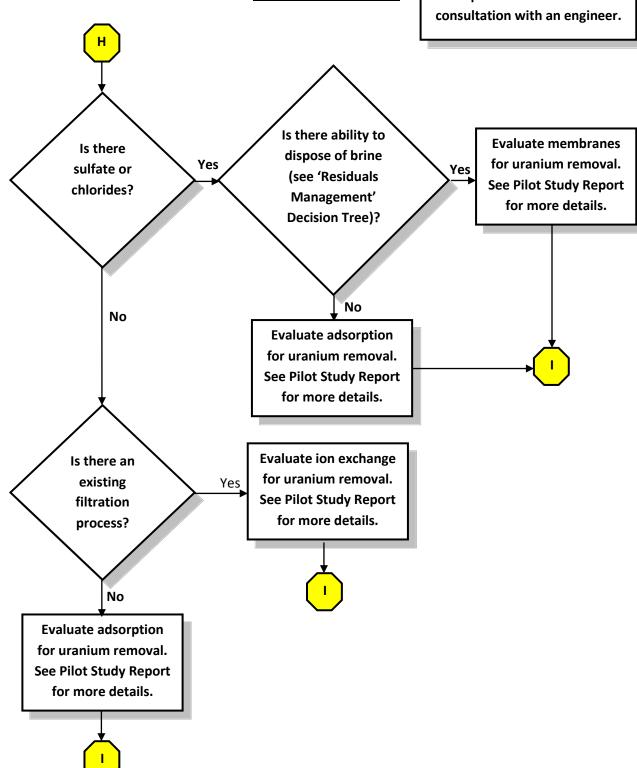




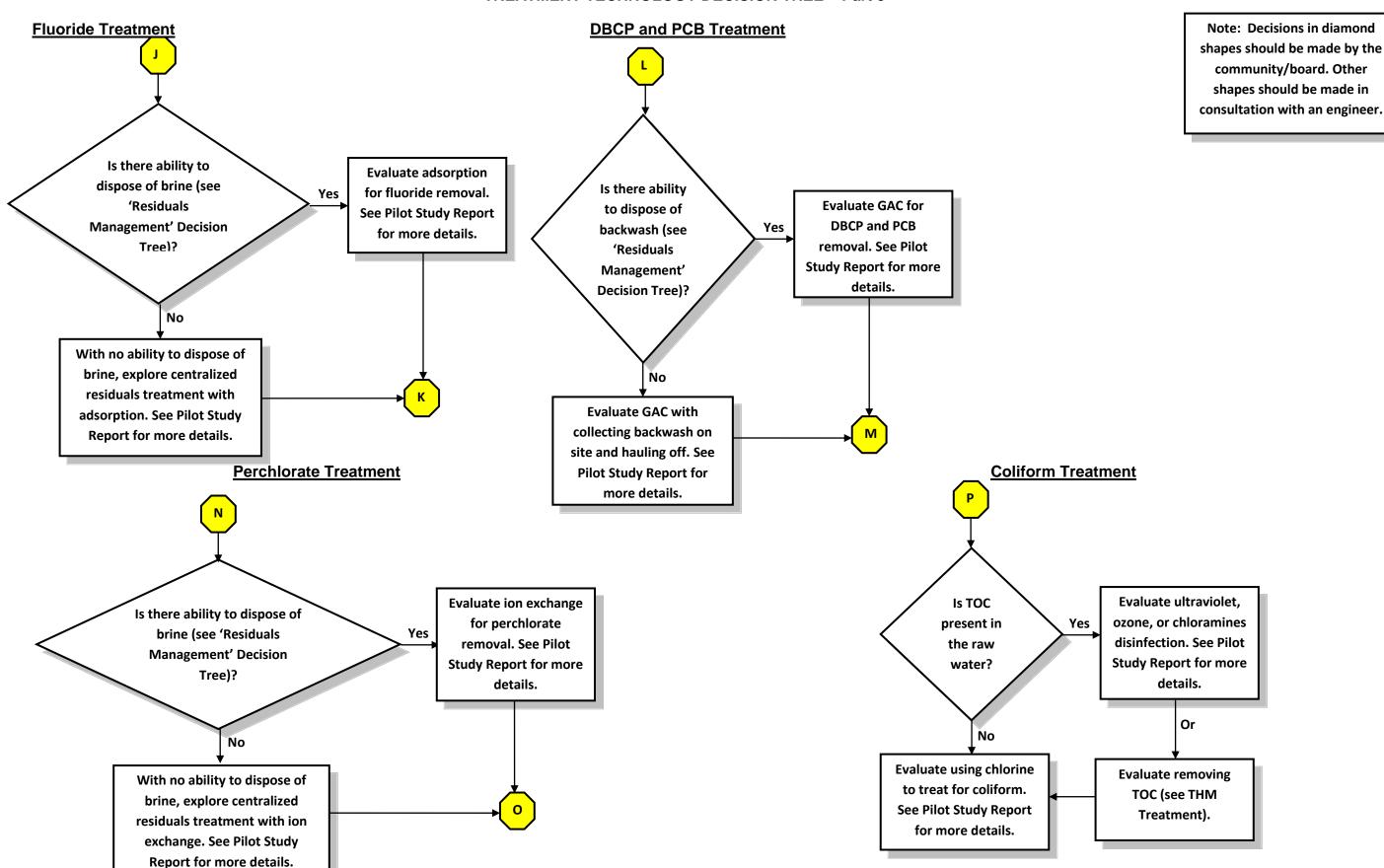


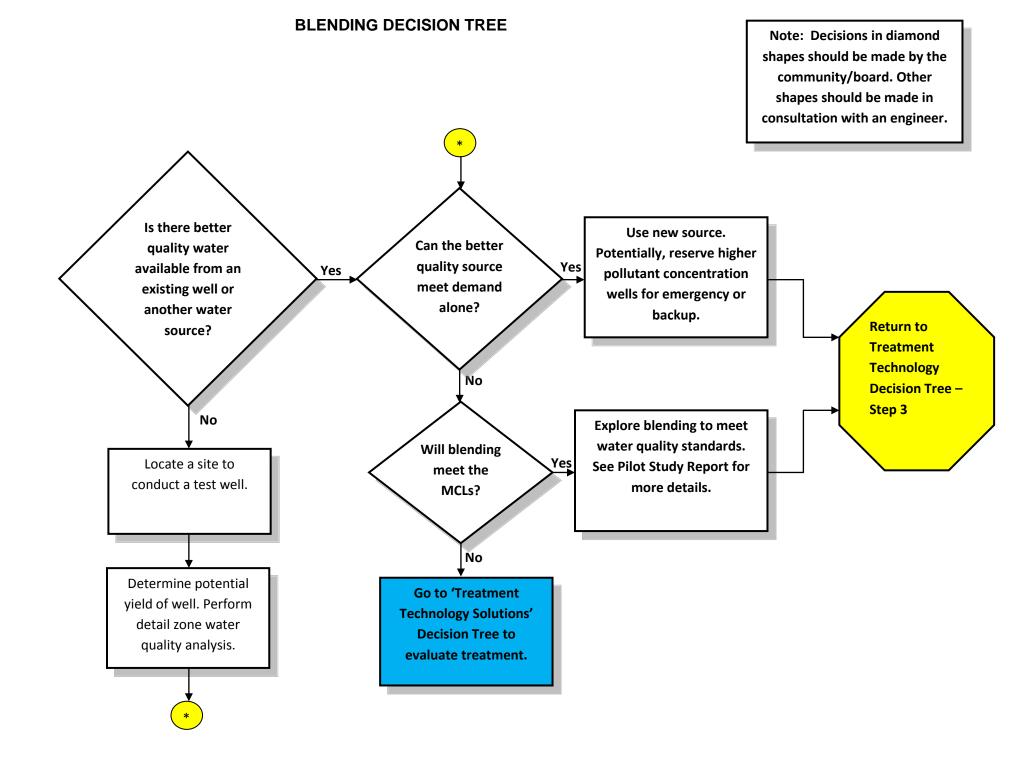
# **THM Treatment** Evaluate process (like **Evaluate ultraviolet,** aeration) or chemical Is there an ozone, or chloramines changes to increase existing Yes disinfection. See Pilot organics removal. See filtration **Study Report for more Pilot Study Report for** process? details. more details. **Evaluate ultraviolet,** ozone, or chloramines disinfection. See Pilot **Study Report for more** details. \_ Or **Evaluate membranes,** GAC, or gravity filtration. See Pilot **Study Report for more** details.

Note: Decisions in diamond shapes should be made by the community/board. Other shapes should be made in consultation with an engineer.

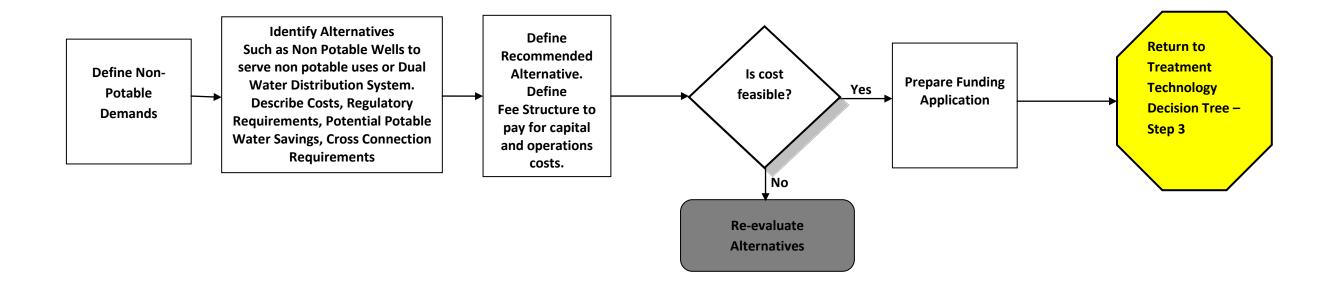


**Uranium Treatment** 

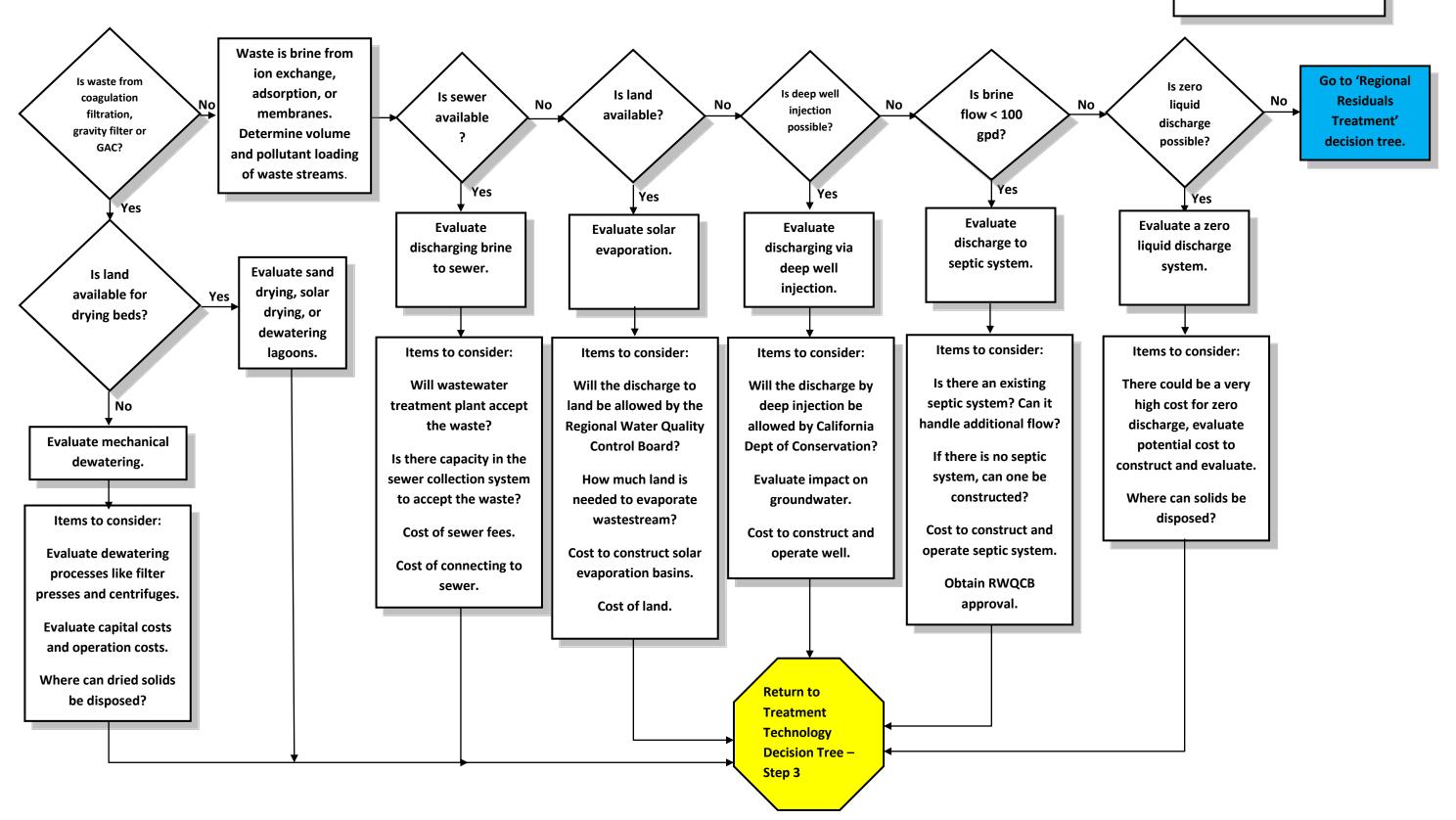




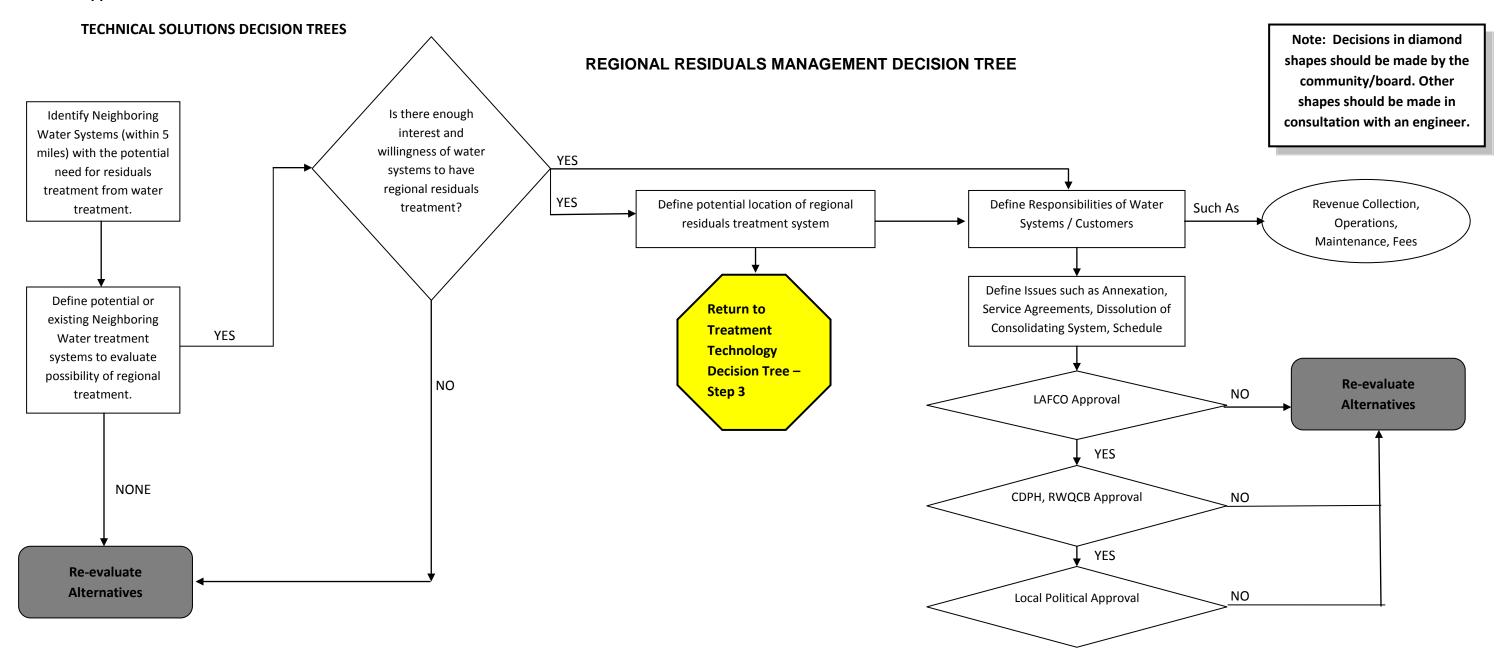
# **DUAL WATER SYSTEM DECISION TREE**



#### RESIDUALS MANAGEMENT DECISION TREE



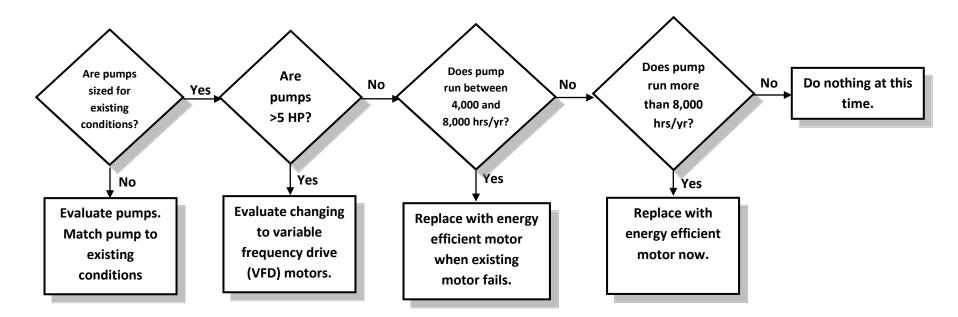
Appendix A



# Appendix A

# **TECHNICAL SOLUTIONS DECISION TREES**

# **Energy Conservation**



# Renewable Energy

